Amendments to the Claims

Please cancel Claims 1 and 2. Please amend Claims 3, 4, 5 and 6. Please add new Claim 9. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1. Cancelled.

2. Cancelled.

3. (Currently amended) A method as in Claim [[2]] 4 wherein the step of determining inter-word segments includes a step of determining total power in the segments and characterizing such segments with relatively low power as inter-word segments.

4. (Currently amended) A method ~~as in Claim 2 additionally comprising the steps of:~~ for processing an acoustic signal to separate the acoustic signal into a voiced (V) component corresponding to an electrolaryngeal source and an unvoiced (U) component corresponding to a turbulence source, the method comprising the steps of:

digitizing the acoustic signal to produce an original stream of numerical values;

extracting a segment of consecutive values from the original stream of numerical values to produce a first group of values covering two or more periods of the electrolaryngeal source;

performing a discrete Fourier transform on the first group of values to produce a discrete Fourier transform result;

extracting a second group of values from components of the discrete Fourier transform result which correspond to an electrolaryngeal fixed repetition rate, F_0, and harmonics thereof;

inverse-Fourier transforming the second group of values, to produce a representation of a segment of the V component;

concatenating multiple V component segments to form a V component sample stream;

determining the U component by subtracting the V component sample stream from the original stream of numerical values;

determining segments of the input acoustic signal that correspond to inter-word segments[.];

filtering the V component sample stream;

for segments determined to be inter-word segments, setting the corresponding values of the V component sample stream to a zero value;

adding the U component values to the altered V component sample stream values; and

producing a process acoustic sample stream from the addition of the U values and altered V values.

5. (Currently amended) A method as in Claim [[1]] 4 wherein the steps are performed in a digital signal processor connected in line with a telephone apparatus.

6. (Currently amended) ~~A method for processing an acoustic signal to separate the acoustic signal into inter-word and non-inter-word segments, the method comprising the steps of:~~

~~digitizing the acoustic signal to produce an original stream of numerical values;~~

~~extracting a segment of consecutive values from the original stream of numerical values to produce a group of values;~~ A method as in Claim 4 wherein the step of determining inter-word segments further comprises:

determining an average power level for the group of values; and

if the average power level of the group of values is below a threshold value, determining that the group of values corresponds to an inter-word segment of the acoustic signal.

7. (Original) A method as in claim 6 additionally comprising the step of:

if the average power level of the group of values is above a threshold value, determining that the group of values corresponds to a non-inter-word segment of the acoustic signal.

8. (Original) A method as in claim 6 additionally comprising the step of:

setting the group of values to a zero value if they correspond to an inter-word segment.

9. (New) A method for processing an acoustic signal to separate the acoustic signal into a voiced (V) component corresponding to an electrolaryngeal source and an unvoiced (U) component corresponding to a turbulence source, the method comprising the steps of:

digitizing the acoustic signal to produce an original stream of numerical values;

extracting a segment of consecutive values from the original stream of numerical values to produce a first group of values covering two or more periods of the electrolaryngeal source;

performing a discrete Fourier transform on the first group of values to produce a discrete Fourier transform result;

extracting a second group of values from components of the discrete Fourier transform result which correspond to an electrolaryngeal fixed repetition rate, F_0, and harmonics thereof;

inverse-Fourier transforming the second group of values, to produce a representation of a segment of the V component;

concatenating multiple V component segments to form a V component sample stream;

determining the U component by subtracting the V component sample stream from the original stream of numerical values;

filtering the V component sample stream;

setting corresponding selected values of the V component sample stream to a zero value;

adding the U component values to the altered V component sample stream values; and

producing a processed acoustic sample stream from the addition of the U values and altered V values.